

**REMARKS**

Reconsideration and further examination of the application as amended are respectfully requested. All objections and rejections are respectfully traversed.

**Drawings**

In the Drawings, Fig. 1 was objected to because it does not include a “Prior Art” legend on it. Applicant attaches a replacement sheet for Fig. 1 to which the term “Prior Art” has been added. Accordingly, the objection to the drawings should be withdrawn.

**IDS**

On March 4, 2004, Applicant submitted an IDS enclosing a complete copy of the PCI-X specification standard for the Examiner’s review. It was solely because of its large size that Applicant did not include a complete copy of the specification standard in the prior IDS (although Applicant did include a complete copy of the document’s Table of Contents). Had the Examiner contacted counsel for the Applicant, counsel would have been happy to provide a complete copy of that document, or any other requested materials for that matter. No such telephone call was made, however.

**Claim Rejections**

Claims 1, 2, 4, 9 and 11 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,523,140 to Arndt et al. (“Arndt”). Claims 3, 10 and 13-15 were rejected under 35 U.S.C. §103 as being obvious based on Arndt in view of *PCI-X Addendum to the PCI Local Bus Specification, Revision 1.0* (“PCI-X Specification”). Claims 5-8 and 12 were objected to as depending from rejected base claims, but would be allowable if rewritten.

Claim 1, in relevant part, recites:

“In a computer system . . . an I/O bridge . . . **the I/O bridge comprising:**”

“**a transaction engine . . .**”

“wherein the transaction engine:”

“generates an attribute message that includes a tag field and a requester function number field,” and

“**loads the requester function number field with a selected one of a plurality of values**”.

That is, claim 1 positively recites that an “I/O bridge” loads one of a plurality of values into a requester function number field of an attribute message.

Arndt fails to disclose such an I/O bridge. Applicant agrees that Arndt (as well as the PCI-X specification itself) discloses an attribute message 201 (Fig. 2) having a requester function number field 209. However, there is no disclosure by Arndt that his I/O bridge (111) loads the requester function number field (209) with any value whatsoever. Instead, Arndt discloses an I/O adapter (115 or 119), and not the I/O bridge (111), that loads values in the requester function number field (209). Specifically, Applicant directs the Examiner’s attention to Col. 3, lines 40-43, which state as follows:

Also, a requester function number segment 209 identifies the specific function number of **the device** requesting the transaction for devices that have multiple functions.

That is, Arndt discloses only that an I/O adapter device (as opposed to an I/O bridge) may load a value in the requester function number field (209). This is confirmed by Arndt at Col. 3, lines 60-62, which state as follows:

The frozen status of the PCI adapter is kept based on the PCI adapter’s bus number, device number and **function number of the adapter**.

In other words, Arndt makes clear that it is solely an I/O adapter (and not an I/O bridge) that loads a value into the requester function number field (209).

This is consistent with the PCI-X specification standard as well. Applicant directs the Examiner's attention to Section 8.4.3.2.3 of the PCI-X specification standard, which states in part as follows:

When the bridge creates the Split Completion, the bridge creates the Split Completion address and Completer Attributes. It creates the Split Completion address from the original request, the same way a PCI-X completer would (see Section 2.10.3). For the Completer Attributes, the bridge creates a Completer ID that partially describes the location of the conventional completer. If the conventional interface is the primary bus, the bridge supplies the bus number from the Primary Bus Number register in the conventional PCI Configuration Space header. If the conventional interface is the secondary bus, the bridge supplies the bus number from the Secondary Bus Number register. **In both cases, the bridge sets the Device Number and Function Number fields to zero.**

In other words, as noted by the Applicant on p. 3, lines 7-8 of the Specification, I/O bridges are not multi-function devices, and therefore they do not enter any values (other than null or all zeros) in the requester function number field.

Because Arndt fails to disclose an I/O bridge that loads the requester function number field of an attribute message with “a selected one of a plurality of values”, the rejection based on Arndt should be withdrawn. See MPEP §2131 (The identical invention must be shown in the cited reference in as complete detail as in the recited claim to support a rejection under §102).

Similarly, independent claim 11 recites, in relevant part:

“providing at least one queue having a plurality of entries . . .” and  
“associating each queue entry with a selected tag value **and with one of a plurality of selected requester function number values**”.

Arndt fails to disclose an I/O bridge in which queue entries are associated with both tag values **and** “selected requester function number values.” Instead, as noted above, the only use of requester function numbers disclosed by Arndt is by the I/O adapters. Because Arndt provides no disclosure of associating queue entries with both tag values **and selected requester function numbers**, the rejection of claim 11 should also be withdrawn.

The rejected dependent claims are allowable because they depend from allowable base claims, and because they recite features neither disclosed nor suggested by the art of record.

Claim 2, for example, recites in relevant part:

“the transaction engine (of the I/O bridge) logically concatenates the tag field and the requester function number field . . . to create a super tag value”.

Thus, claim 2 recites not only that the I/O bridge loads the requester function number field, but that the I/O bridge logically concatenates both the tag and the requester function numbers field into a single “super-tag” field. With these two fields logically concatenated together, the I/O bridge is able to support more tag values, thereby substantially increasing the number of split transactions that can be outstanding. Arndt provides no disclosure whatsoever of logically concatenating the tag and the requester function number fields into a new field. Instead, Arndt at all times treats the tag field 203 and the requester function number field 209 as two separate fields.

PATENTS  
15311-2285U1  
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Applicant submits that the application is in condition for allowance and early favorable action is respectfully requested.

Respectfully submitted,



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